# ABSTRACT

Methods of manufacturing an optical fiber preform and an optical fiber, and an optical fiber formed by this method of manufacturing an optical fiber are provided, the optical fiber preform having a desired refractive index profile and being capable of suppressing an increase in loss due to the absorption by OH groups. A pipe is formed by an inside vapor phase deposition method such that glass layer to be formed into a core and a glass layer to be formed into a part of a cladding pipe are deposited in a starting pipe, the glass layers each containing at least one of fluorine, germanium, phosphorous, and chlorine, the starting pipe being made of a silica glass having an outside diameter in the range of 20 to 150 mm and a wall thickness in the range of 2 to 8 mm. The pipe thus formed is collapsed to form a glass rod in which the concentration of hydroxyl groups is 10 weight ppm or less in a region from the surface of the glass rod to a depth of 1 mm therefrom.